(for example 400 KΩ). A diode connected transistor is connected to resistor 810 as shown. The voltage applied through switch 806 to the gates of transistors 802 when the circuitry is in an off-hook mode is generated with a differential amplifier 814 having a bandgap voltage of 1.25 V and the REF pin voltage as its two inputs as shown. In off-hook operation, the switch 806 is closed and the switch 804 is opened. When a transition to on-hook operation is desired (for example as signaled by the on-hook control signal 504), the switch 806 opens and the switch 804 closes. This will result in transistors 802 to begin to turn off and the current I_{CHIP} will begin to ramp down. The speed at which the transistors will turn off and the current ramps down will be dependent upon the time constant of external capacitor C13, transistor 820, and the internal resistor 810. The di/dt of the current I_{CHIP} is therefore affected by the values chosen for the resistor 714 and the capacitor C12.

a7 cont

In the Claims:

Claims 1, 10, 15, 18, 19, 24 and 35 are being amended.

The rewritten clean versions of all the pending claims are provided below. Attached at the end of this paper is an Appendix providing an indication of the changes relative to the prior version of the claims, as now required by Rule 121(c).

a8

1. [Amended] A communication system, comprising:

phone line side circuitry that is capable of being coupled to phone lines;

powered side circuitry that is capable of being coupled to the phone line side circuitry through an isolation barrier;

a hookswitch transition node carrying a hookswitch transition signal indicative of a desire to change a hookswitch within the phone line side circuitry from an off-hook state to an on-hook state; and

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current control circuitry coupled to the hookswitch transition node within the phone line side circuitry, the current control circuitry operating prior to the completion of a hookswitch transition to enable a decrease in a current level drawn from the phone line in response to the hookswitch transistion signal.

2. The communication system of claim 1, further comprising at least one switch within a phone line side DAA integrated circuit, the switch being responsive to the hookswitch transition signal to implement at least a portion of the ramping of the current drawn from the phone line.

3. The communication system of claim 2, wherein the phone line side circuitry and the powered side circuitry are configured to communicate across the isolation barrier through digital signals, wherein the digital signals include a digital phone line data stream multiplexed with control data before the digital signals are sent across the isolation barrier.

4. The communication system of claim 3, further comprising the isolation barrier coupled between the phone line side circuitry and the powered side circuitry, the isolation barrier comprising one or more capacitors.

5. The communication system of claim 1, the hookswitch comprising at least one bipolar transistor.

6. The communication system of claim 1, further comprising the isolation barrier coupled between the phone line side circuitry and the powered side circuitry, the isolation barrier being a capacitive barrier.

7. The communication system of claim 1, wherein the phone line side circuitry and the powered side circuitry are configured to communicate across the isolation barrier through digital signals, wherein the digital signals include a digital phone line data stream multiplexed with control data before the digital signals are sent across the isolation barrier.

8. The communication system of claim 7, further comprising the isolation barrier coupled between the phone line side circuitry and the powered side circuitry, the isolation barrier being a capacitive barrier.

9. The communication system of claim 8, the current being ramped downward to a value of less than or equal to 50% of the current drawn from the phone line prior to a transition in the hookswitch transition signal.

10. [Amended] A method of operating a communication system that is capable of being coupled to a phone line, comprising:

coupling an isolation barrier between powered circuitry and phone line side circuitry;

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drawing current at a first current level from the phone line through the hookswitch circuitry;

providing hookswitch circuitry within the phone line side circuitry, the hookswitch circuitry setting the communication system in a phone line off-hook state or a phone line on-hook state; and

adjusting downward the current drawn through the hookswitch to a second level in response to a signal indicative of a desired state of the hookswitch circuitry prior to changing the hookswitch from an off-hook state to an on-hook state, the second current level being less than the first current level.

11. The method of claim 10, further comprising utilizing a capacitive barrier to isolate the powered circuitry and the phone line circuitry.

12. The method of claim 11, further comprising passing digital signals across the isolation barrier.

13. The method of claim 12 wherein the digital signals include a digital phone line data stream multiplexed with control data before the digital signals are sent across the isolation barrier.

14. The method of claim 12, further comprising utilizing a capacitive barrier to isolate the powered circuitry and the phone line circuitry.

a10

15. [Amended] The method of claim 14, the current being adjusted downward while the hookswitch begins to change states.

16. The method of claim 15, the second current level being less than or equal to 50% of the first current level when the hookswitch has completely changed states.

17. The method of claim 15, wherein the current drawn through the hookswitch exceeds 1 mA.

18. [Amended] A hookswitch transition circuit within a communication system that is capable of being connected to phone lines, the hookswitch transition circuit comprising:

a hookswitch control node carrying a hookswitch control signal; and

a11

at least one variable current circuit coupled to the hookswitch control node, the at least one variable current circuit responsive to the hookswitch control signal to decrease a current drawn from the phone lines prior to changing the state of a hookswitch.

19. [Amended] The hookswitch transition circuit of claim 18, the at least one variable current circuit comprises at least two variable current circuits, each coupled to the hookswitch control node.

20. The hookswitch transition circuit of claim 18, the hookswitch control signal also initiating a change of state of the hookswitch.

21. The hookswitch transition circuit of claim 18, the at least one variable current circuit being responsive to the hookswitch control signal when the hookswitch control signal indicates a transition from an off-hook state to an on-hook state.

22. The hookswitch transition circuit of claim 18, a current level within the at least one variable current circuit having a first current level when the hookswitch control signal is in an off-hook state and a current level within the at least one variable current circuit having a second level when the hookswitch control signal is in an on-hook state, the second current level being less than the first current level.

23. The hookswitch transition circuit of claim 18, the current drawn from the phone lines being decreased to a second current level that is 50% or less than a first current level, the first current level being an off-hook current level and the second level being attained prior to the hookswitch completing a transition to an on-hook state.

a12

24. [Amended] The hookswitch transition circuitry of claim 18, further comprising at least one switch coupled to the hookswitch control node within a phone line side DAA integrated circuit.

25. A method of controlling the current change in phone line side circuitry, comprising:

providing a signal indicative of a desire to change a hookswitch from an off-hook state to an on-hook state; and

adjusting downward the current drawn from a phone line in response to the signal prior to changing the hookswitch from the off-hook state to the on-hook state.

26. The method of claim 25, wherein said adjusting comprises altering the current flow

through at least one circuit within a phone line side integrated circuit.

27. The method of claim 26, wherein the phone line side integrated circuit includes as least one switch responsive to the signal.

28. The method of claim 27, wherein the current drawn from the phone line when the on-hook state is obtained is less than or equal to 50% of the current drawn when the hookswitch is in the on-hook state.

29. A method of controlling current in a phone line, comprising:

actively controlling at least one current circuit of a DAA integrated circuit in response to a hookswitch transition signal; and

substantially decreasing the current in the phone line as a result of the active control prior to achieving an on-hook state.

30. The method of claim 29, wherein the hookswitch transition signal is indicative of a transition from an off-hook state to an on-hook state.

31. The method of claim 30, wherein the current is decreased by at least 50%.

32. The method of claim 29, wherein the actively controlling further comprises controlling a plurality of current circuits.

33. The method of claim 29, wherein the active control includes changing the state of at least one switch within the DAA integrated circuit.

34. The method of claim 33, wherein the at least one circuit is coupled to the hookswitch.